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09/468,254	12/20/1999	TERRY P. MAHONEY	10992003-1	3404

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HEWLETT PACKARD COMPANY  
P O BOX 272400, 3404 E. HARMONY ROAD  
INTELLECTUAL PROPERTY ADMINISTRATION  
FORT COLLINS, CO 80527-2400

EXAMINER

MILLER, MARTIN E

ART UNIT PAPER NUMBER

2623

DATE MAILED: 10/01/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/468,254

Applicant(s)

MAHONEY ET AL.

Examiner

Martin Miller

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 1999 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The examiner has considered the IDS filed December 20, 1999 and an initialed copy is included with this office action.

### ***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "150" has been used to designate both the hardcopy document and image capture device. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 4 recites the limitation "digital" in line 2. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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6. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

7. Claims 1-5, 9-12, 14, 15, 18, 20 and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by Hecht, US 5901224.

As per claim 1, Hecht teaches:

placing a mark on the hardcopy, the mark containing identification information of the electronic document (col. 4, ll. 1-9);

viewing the hardcopy by an image capture device to capture an image of the hardcopy document (col. 5, ll. 33-36, col. 6, ll. 4-15);

decoding (glyph decoder) the mark from the image captured by the image capture device to determine identification information of the electronic document (col. 6, ll. 16-21); and

processing the electronic document according to the identification information (col. 6, ll. 27-42).

As per claim 2, Hecht teaches:

wherein the step of viewing the hardcopy is performed by moving a copy of the hardcopy in front of the image capture device (col. 4, ll. 2-5).

As per claim 3, Hecht teaches:

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wherein the step of placing a mark on the hardcopy is performed by creating the mark at the time of creation of the electronic document and wherein the hardcopy, with the mark, is printed from the electronic document (col. 4, ll. 2-5, col. 5, ll. 22-26).

As per claim 4, Hecht teaches:

wherein the step of placing a mark is performed by a printer that prints the digital mark on the hardcopy document. (col. 4, ll. 13-18).

As per claim 5, Hecht teaches:

wherein the step of placing a mark is performed by a copying the hardcopy having a mark to create another hardcopy with the mark(col. 4, ll. 13-18 or col. 6, ll. 34-38).

As per claim 9, Hecht teaches:

wherein the step of processing the document includes the step of mailing the document by electronic mail (col. 6, ll. 54-56, where the data referred to is the bitmap data stored in document storage).

As per claim 10, Hecht teaches:

wherein the step of processing the document includes the step of the printing the document (col. 4, ll. 8-10).

As per claim 11, Hecht teaches:

wherein the step of processing the document includes the step of making a copy of the electronic document (col. 4, ll. 8-10).

As per claim 12, Hecht teaches:

wherein the mark is machine readable code formed on a substrate on which the hardcopy is printed (col. 4, ll. 8-10, the mark is on the paper).

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As per claim 14, Hecht teaches:

wherein the machine readable code is formed on a particular location in the hardcopy document (area suitable, col. 4, l. 5).

As per claim 15, Hecht teaches:

wherein the mark is a digital mark (figure 5).

As per claim 18, Hecht teaches:

wherein the step of processing the electronic document includes identifying and processing based on any intellectual property rights associated with the hardcopy documents (col. 3, ll. 15-18).

As per claim 20, Hecht teaches:

a data storage device that stores the electronic document (fig. 1, element 30);

a mark encoder that encodes a mark on the hardcopy (fig. 1, element 54, glyph encoder);

an image capture device that captures an image of the hardcopy including the mark (fig. 1, document input device, element 20);

a decoder (fig. 1, element 34, glyph decoder), operatively connected to the image capture device, for decoding document identification information from the mark from the image captured by the image capture device; and

a processing unit (fig. 1, element 36, control unit), connected to the decoder and the data storage device, that processes the electronic document in accordance with the decoded document identification information.

As per claim 21, Hecht teaches:

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wherein the processing unit processes the electronic document by one of sending by electronic mail, printing (fig. 1, element 58), or copying (fig. 1, element 58) of the electronic document. Hecht teaches that the digital value of the code can include machine control instructions (col. 1, ll. 60-63).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 6-8, 16 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hecht, further in view of Daniele, US 544479.

As per claim 6, Hecht does not teach barcodes specifically, but Hecht teaches Daniele teaches any unobtrusive two-dimensional mark can be used (col. 3, ll. 10-15). Therefore, Daniele teaches:

wherein the mark is a bar code (abstract). It would have been obvious to one of ordinary skill in the art that a bar code is a two-dimensional mark that can be used to encode a copyright identifier on a document. One would be motivated to combine Hecht with Daniele because both reference the same glyph encoding system but also recognize that other marks are possible to be used in either system.

As per claim 7, Daniele teaches:

wherein the mark is a two dimensional bar code (abstract).

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As per claim 8, Hecht does not teach the use of a monitor to view the document.

However, Daniele teaches:

wherein the step of processing the document includes retrieving the document for viewing (Fig. 7, Element 200 shows a system in which the system invention can be embodied including a monitor). Both Hecht and Daniele are directed towards inventions that collect and record copyright royalties for reproduction. It would have been obvious to one of ordinary skill in the art to use a display to present the document to be imaged to the user to allow them to confirm the document is the one desired prior to paying the royalty.

As per claim 16, Hecht does not specifically teach using his system for bulk printing.

However, Daniele teaches a device capable of bulk printing:

wherein the step of placing a mark is performed by a printing press that prints the mark during bulk printing (figure 2, document printer). Daniele teaches that reprographic devices include photocopiers and electronic printer, which are obviously capable of printing in bulk (more than one copy, col. 1, ll. 17-25).

As per claim 19, Hecht does not specifically allocating and calculating costs. However, Daniele teaches:

wherein the step of processing the electronic document includes calculating and allocating revenues or costs associated with the hardcopy document (survey results of prior art, figure 1 and "\$" in figure 7). It would have been obvious to one of ordinary skill in the art to use the glyphs of Hecht as the glyphs in Daniele to record, track, and allocate the accrual of copyright royalties.



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10. Claims 13 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hecht.

As per claim 13, Hecht does not specifically teach font pattern modification, however, Hecht does teach concealing data by making it transparent to the human visual system.

Therefore:

wherein the machine readable code is formed using font pattern modification including one of a half-tone screen , inter-character spacing modification, and dithering patterns.

(OFFICIAL NOTICE- inter-character spacing modification is an age-old, notoriously well-known method of steganographically concealing information.)

It would have been obvious to one of ordinary skill in the art to use inter-character spacing as a method of concealing data particularly when a computer system would be much more effective than the human visual system at determining variations in inter-character spacing.

As per claim 17, Hecht teaches:

wherein the step of processing the electronic document includes invoking a software application (instructions stored in control unit, col. 6, ll. 34-37) to process the electronic document (see also, col. 6, ll. 54-56, which would require invoking a software application).

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following U.S. patent(s)/patent application publications refer(s) to steganographically monitoring reproduction of images: Zdybel, Jr. et al, 5486686, Gasper et al., 5752152, Stefik et al., 6233684, Wang, 6263086, Rhoads, 6122403, and Davies et al, 2002/0085759 A1.


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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin Miller whose telephone number is (703) 306-9134. The examiner can normally be reached on Monday-Friday, Maxi-flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (703) 308-6604. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

*mem*  
mem  
September 27, 2002

  
AMELIA M. AU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600